30" Glass-Lined Elbow Restoration with Belzona 1511 & 1593

ID: 10333

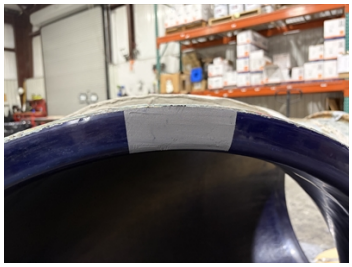
Industry:	*Chemical & Petrochemical*	Customer Location:	*Geismar*
Application:	*VPF-Valves, Pipes and Fittings*	Application Date:	*June 2026*
Substrate:	*Other*		
Products:	*Belzona 1511 (Super HT-Metal),Belzona 1593*		

Problem

A 30-inch glass-lined steel elbow used in aggressive chemical service had sustained localized damage to the internal glass lining, exposing the underlying steel substrate. If left unaddressed, the damaged area would have been vulnerable to chemical attack, leading to accelerated corrosion, loss of containment, reduced equipment reliability, and potentially unplanned downtime. Replacing the elbow would have been costly and required extended lead times, so the customer required a repair solution capable of restoring the damaged lining while extending the service life of the existing component.



Inspect and identify damaged lining.



Mechanically prepare the repair area.



Rebuild the damaged substrate using Belzona 1511.



Apply Belzona 1593 over the repaired section.

Application Situation

The customer had a damaged 30-inch glass-lined steel elbow in aggressive chemical service. Replacing the elbow would have resulted in significantly higher costs, longer lead times, and extended downtime. Belzona provided a practical repair solution that restored the damaged lining and returned the component to service without the need for replacement. The repair was completed at the AAS workshop, allowing the customer to minimize outage time while extending the service life of the existing asset.

Application Method

The damaged area was inspected and mechanically prepared by removing loose or damaged lining and creating a suitable surface profile. The damaged section was rebuilt using Belzona 1511 Super HT-Metal, restoring the original profile and filling defects. After curing, the repair area was prepared for coating and overcoated with Belzona 1593 to provide a chemically resistant lining. The repair was completed using standard surface preparation equipment, abrasive tools, mixing equipment, and hand application tools including spatulas and brushes to achieve the required finish.

Belzona Facts

Eliminated the need for immediate replacement of the glass-lined elbow.
Reduced maintenance costs compared to purchasing a new component.
Minimized downtime by allowing the repair to be completed in the workshop prior to installation.
Combined the structural rebuilding capability of Belzona 1511 with the chemical resistance of Belzona 1593.
Restored the damaged lining while extending the service life of the existing equipment.
Provided the customer with a cost-effective alternative to replacement.

ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

Belzona products are manufactured under an ISO 9000 Registered Quality Management System.

www.belzona.com

BELZONA® Repair • Protect • Improve

Copyright © Belzona International Limited 2026